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# **Arthur D Little**

Level I
Five Year Review
for Operable Unit 1
and
Operable Unit 2
at the
Western Sand &
Gravel Site,
Burrillville, RI

Superfund	l Records Center
SITE: W	stern Sand + Grant
BREAK:	9.3
OTHER:	

# Prepared for:

U.S. Environmental Protection Agency Region I (PCC-268)

**December 14, 1992** 

Prepared by:

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### 1.0 Introduction

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by Section 121(C), and Section 300.430(f)(4)(ii) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), requires a five year review of remedial actions selected on or after October 17, 1986. The US EPA has contracted with Arthur D. Little, Inc. (ADL) to perform a Level I, Five Year Review of the Operable Unit 2 (OU2) under Contract No. 68-W8-0120, Work Assignment No. 25-1R04 (ADL Reference No. 42000). Because the Record of Decision (ROD) for this OU2 was signed in 1985, this review is required as a matter of policy only. This report summarizes the results of this review which was conducted in accordance with OSWER Directive 9355.7-02, "Structure and Components of Five Year Reviews" (May 23, 1991).

The first objective of this review is to evaluate the effectiveness of the selected remedial alternative for OU2 and to determine if it remains protective of public health and the environment. The second objective is to comment on the adequacy and effectiveness of the remedy selected for Operable Unit 1 (OU1), the filter systems installed on the domestic drinking water wells of nearby residents.

The Record of Decision (ROD) for OU2, signed September 1985, required that the selected remedy, a low permeability capped landfill, be constructed, operated and maintained in accordance with Resource Conservation and Recovery Act (RCRA) provisions. The low permeability capped landfill (Operable Unit 2) at the Western Sand & Gravel Site, Burrillville, Rhode Island was completed in December, 1987 as part of the remedial action for this National Priority List (NPL) site.

The ROD for OU1, signed in September 1984, required the installation of water filters on the domestic wells which demonstrated contamination or which were considered likely to be contaminated. The ROD also required the installation of a permanent water supply for the residents with contaminated or threatened wells, the phase-out of the ground water recirculation system and the removal of its associated equipment.

### 2.0 Summary Conclusions from this Review

- The remedy selected for OU2 remains protective of the public health and of the environment.
- The remedy selected for OU2 continues to provide satisfactory protection of the contaminated areas from precipitation and therefore adequately reduces the infiltration of water to the contaminated areas and the migration of contaminants from the landfill into the ground water.

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- The operation and maintenance of the remedy for OU2 over the past five years meets the requirements established in the ROD for the Site.
- The Domestic Well Filter and Monitoring Program for the wells of residents which was required as part of the selected remedy for OU1 continues to provide adequate removal of volatile organic contaminants from these wells.
- The alternative water supply, required as part of the selected remedy for OU1, has been installed, but is not yet operational.

# 3.0 Background

The Western Sand & Gravel Site is located in the towns of Burrillville and North Smithfield, Rhode Island. It is bordered by a semi-rural residential area and overlies a portion of the Slatersville Aquifer, a major potential source of drinking water for the State of Rhode Island.

The Site, owned by Western Sand & Gravel, Inc., was an active sand and gravel quarry operation from 1953 until 1975. Beginning around 1975, approximately twelve (12) acres of the twenty (20) acre parcel were used for the disposal of liquid wastes, including hazardous substances and sewage wastes. The total volume of the materials disposed of at the site is unknown. Wastes were dumped into twelve (12) unlined lagoons and pits. A plume of contaminated ground water resulted and this plume spread north and northwest from the site.

A fire occurred in one of the chemical pits in March 1977 and Fire Department officials from Burrillville and North Smithfield ordered Mr. James Cardi, Jr., the Site owner and operator, to remove the chemicals from the Site. Mr. Cardi responded by burying the contents of the waste pit. On April 24, 1979, a Cease and Desist Order was issued to Mr. Cardi by the Rhode Island Department of Environmental Management (RIDEM) for violations of water and air pollution regulations.

After April 1979, wastes were no longer accepted at the Site. RIDEM records indicate that about 470,000 gallons of wastes were deposited at the Site during its last year of operation.

In March 1980, at the request of RIDEM, EPA began the removal of the hazardous liquid still remaining in the lagoons. It is estimated that approximately 60,000 gallons of liquids were pumped and removed from the lagoons. These actions were taken under the authority of Section 311 of the Clean Water Act and were completed in the fall of 1980, prior to the passage of the Comprehensive, Environmental Response, Compensation and Liability Act (CERCLA). Analysis of these wastes showed that they contained high levels of volatile organic compounds (VOCs).

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In October 1981, EPA proposed the addition of the Site to the National Priorities List (NPL) making it eligible to receive Superfund monies for investigation. The Site was listed as a NPL site in September 1983. In 1982, RIDEM took the lead responsibility for the activities at the Site and began a ground water recirculation system in an effort to control the spread of contaminants in the ground water. In May 1984, RIDEM completed the first Remedial Investigation and Feasibility Study (RI/FS) for the Site under a cooperative agreement with EPA. The conclusions of the RI were as follows:

- Organic chemicals had infiltrated through highly permeable soil into the ground water.
- Organic chemicals had migrated from the site through the upper fractured bedrock and residential wells down gradient from the Site were contaminated.
- Contamination had migrated to and had affected the quality of drinking water in nearby residential wells.
- Contaminated ground water discharged into nearby Tarkiln Brook and Slatersville Reservoir
- Contaminated soil and sludge existed in various locations on the Site.
- Hazardous air emissions were not detected at the Site.

In September 1984, EPA issued the first ROD for the Site which required the following:

- The installation of water filters as an Initial Remedial Measure (IRM) to provide protection for homes where contaminants were identified in their wells, until the permanent alternate water supply became functional.
- The installation of a permanent alternate water supply to service approximately 56 parcels of land.

Starting in August 1984, Olin Hunt Specialty Products, Inc. (Olin), a potentially responsible party (PRP) at the Site, installed water filters in private homes with contaminated wells and in homes with wells that might become contaminated. EPA began construction of the permanent water supply in April 1990. The U.S. Army Corps of Engineers has indicated that the permanent alternate water supply is certifiably complete and ready to be made operational. Interviews with EPA indicate that the system is not currently operational.

EPA conducted additional investigations in 1984 and 1985 which concluded with the preparation of an Addendum to the 1984 RI/FS Report developed by RIDEM.

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Following the finalization of the Addendum in August 1985, the EPA issued a second ROD signed September 30, 1985 which required the following remedy:

- The grading of contaminated soil to the cap area.
- The installation of an impermeable cap consistent with RCRA provisions.
- The phasing out of the groundwater recirculation system, and the removal and disposal of the associated equipment.
- The final grading of the Site with loam and the seeding of the cap and surrounding surface.
- The securing of the Site with a fence and posting of the Site.

This ROD also required the following operation and maintenance of the Unit:

- The inspection and maintenance of the cap, fence, and postings consistent with RCRA provisions.
- Continued ground water monitoring consistent with RCRA post-closure provisions.

Pursuant to a consent decree among the EPA, the State of Rhode Island, and Hunt, construction activities for the impermeable cap were completed by Hunt in 1987. All contaminated soils were excavated and moved to the cap site, and an impermeable cap, of approximately two (2) acres, was installed and now covers the contaminated soils (US EPA, Region I, Record of Decision, April 16, 1991). The Site was graded and the cap and graded area are fenced and posted with warning signs. The fenced area comprises approximately six (6) acres. Post-closure monitoring and inspections of the cap and graded Site areas are ongoing.

All activities associated with the phase-out of the ground water recirculation systems, including the removal and disposal of equipment, were also completed by Hunt in accordance with the RoD.

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### 4.0 Document Review

The documents described below were reviewed and utilized to help evaluate the effectiveness of the selected remedial action and to evaluate the performance of the associated standards as presented in the ROD with respect to adequately protecting human health and the environment.

### 4.1 Records Reviewed

The Administrative Records for the Site are stored at the U.S. EPA Region I Records Office, 90 Canal Street, Boston, MA. Of the many records that were available and reviewed by Arthur D. Little personnel, the following were found to be most applicable to this Five Year Review:

- The RODs covering OU1 (September 1984), OU2 (September 1985) and OU3, (April 1991).
- A draft copy of the "Consent Decree" from March 1986 (signed 1987). From
  conversations with US EPA personnel, it is our understanding that this draft
  document's Appendix I contains the "Remedial Action Plan" which was
  accepted without changes in the final "Consent Decree".
- The "Final Certification Report Cap Closure" Golder Associates for Olin Corporation (April 1988).
- Remedial action documents including the "Post-Closure and Contingency Plan" and related correspondence (August 1989 through April 1991).
- Work Plans ("Closure and Post-Closure Activities", June 1987) and Progress Reports ("Quarterly Progress Report Nos. 1 (Oct. 1987) through 14 (Jan. 1991) were summarized in these records. Report Nos. 15 (April 1991) through 20 (July 1992) were found in the Site Files.
- Site files. Photographs from the Site before, during, and after completion of the cap (OU2). Analytical chemistry reports for samples taken for the monitoring wells as well as for the Domestic Well Sampling Program (Report No. 1, Feb. 1985, through Report No. 88, April 1992, were also reviewed). This review included correspondence concerning the Domestic Well Sampling Program, filter maintenance and community response.

### 4.2 Document Review - Cap Construction

The records indicate that the closure activities were initiated in late July, 1987 and completed in December, 1987. The cap consisted of a primary barrier of 40 mil high density polyethylene (HDPE) membrane with a secondary barrier of 6 inches of

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compacted bentonite/washings blend (enhanced soil). An 18 inch subgrade was laid on all cap soils followed by the bentonite/washing layer. The membrane was layered over the bentonite. A 12 inch thick sand drainage layer was place directly on top of the membrane followed by a fiber fabric and 18 inches of top fill.

Fencing (except for the south gate) was completed by 12/20/87. Seeding and mulching were completed by this date, except for "South of the cap".

Photographs were reviewed which were identified as the spreading, mixing, and compacting of the bentonite layer (dated 10/11-12/87); documenting the synthetic membrane after positioning on the cap; developing the seams of the membrane; and final grading activities (dated 10/28/87). These photographs support the field reports and summary descriptions contained in the "Final Certification Report - Cap Closure" (April 1988). In addition, aerial photographs of the Site, dated Nov. 18, 1989, were reviewed and indicated a completed cap, covered with green vegetation and surrounded by a fence.

The HPDE membrane and bentonite/washings enhanced soil barriers appear to have been designed and constructed to satisfactorily prevent infiltration of water from precipitation and the migration of contaminants from the soil under the cap, thereby meeting applicable RCRA requirements.

# 4.3 Document Review - Phase-Out Activities for the Ground Water Recirculation System

The records indicate that the ground water recirculation system was phased out as required in the ROD for OU1. The storage tank closure activities and well decommissioning were completed in August 1987. The records indicate that the last equipment associated with these activities, power transformers and electrical equipment, were removed by December 1988.

#### 4.4 Document Review - Closure Activities

The records indicate that the following closure activities took place:

- Ground water monitoring wells were installed by April 19, 1988.
- The Site was inspected on April 21, 1988 by the EPA and problem areas concerning sparse vegetation and erosion at the drainage swales on the east and south sides of the cap were observed. Recommendations for more appropriate types of vegetation were also communicated to Olin.
- On Sept. 27, 1988, the Site was inspected by EPA and a list of action items were identified for final closure. These items ranged from the reseeding of certain areas to the removal of drums and pallets.

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- All but four of these action items were corrected, as observed during a final closure inspection by EPA on Feb. 2, 1989. The remaining items included an "erosion gully" in the NE corner; a drainage swale in the NW corner which showed signs of "future erosion problems"; an eroded area under the fence on the West side with no established vegetation; and the need for vegetation to be planted outside the fence on the SW side to prevent complete washout of the cover soil.
- Olin's Quarterly Progress Report (Nos. 9 & 10) indicate that the four action items noted above were corrected by the week of Sept. 11, 1989.
- The Quarterly Progress Reports submitted by Olin indicate that three site inspections were conducted by Olin in the fourth quarter of 1988 and again in the first quarter of 1989. From these reports, it appears that erosion problems, which were identified in earlier EPA and Olin site inspections, were corrected. In addition, the fences, gates, locks and signs were observed to provide effective security for the Site.
- Following the completion of the cap, the records indicate that rounds of ground water sampling and analysis were completed in May 1988, September 1988, December 1988 and March 1989. This work was performed in accordance with the "Project Operations Plan for the RI/FS and for Post-Closure Monitoring..", May 1988.

### 4.5 Document Review - Post-Closure Activities

The "Post-Closure and Contingency Plan" was submitted by Olin to EPA for approval in August 1989. This Plan indicated that no significant seasonal trends were seen in the four rounds of sampling data collected as described in 4.3 above.

It also stated that the September 1988 sampling event would be used as the baseline for future comparisons. Site inspections were scheduled on a quarterly basis. Six wells were identified for post-closure monitoring (C-1 through C-6). Preliminary maintenance and contingency plans were also provided. Olin stated that annual post-closure sampling had been approved by the EPA in the correspondence submitted with this plan.

The review of the records indicate that EPA has not approved this plan and in its letter of Sept. 18, 1990 to Olin, has required a more detailed inspection schedule, a more defined inspection plan, and specific reporting requirements concerning these inspections. Interviews with EPA personnel indicate that this plan has not received EPA approval at this time.

The EPA also required that the Post-Closure and Contingency Plan include the following:

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- A detailed maintenance plan to insure the integrity of the cover and proper operation of monitoring equipment.
- Procedures must be specified to correct the most likely problems such as cover erosion, control of wild animals, patching the impermeable portions of the cap, and the maintenance or replacement of surveying monuments or plates.
- Detailed contingency plans for vandalism to wells, fences, and signs were also noted as requirements.
- Quarterly sampling and analysis for volatile organic contaminants (VOCs).

The Olin Quarterly Reports indicate that annual post-closure sampling and analysis were performed on Sept. 11-12, 1989, August 27, 1990, and September 9, 1991. Additional sampling and analyses were performed on the week of Dec. 9, 1991 and February 24, 1992 (Quarterly Progress Report No. 19, April 1992).

From interviews with Mr. James Brown (US EPA, Region I) and Mr. Robert McCaleb (Olin), it is our understanding that the ground water monitoring requirements for the third ROD (April 1991) address EPA's concerns with the continual monitoring of the overburden ground water and that this ROD will take precedence over past ground water, post-closure monitoring activities for the OU2. Under the "Overburden Aquifer Ground Water Monitoring Plan" of this ROD, 28 wells will be monitored including C-1 through C-6. These wells will be monitored for VOCs on a quarterly basis and for semi-volatiles (SVOC) and metals on an annual basis. After a minimum of 6 years, the VOC sampling frequency will be reviewed. After 3 years the SVOC and metals sampling will be reviewed.

In addition, another 28 wells located to the North and Northwest of the landfill, will be monitored on a semi-annual basis for VOCs. After a minimum of 3 years, the frequency of VOC sampling will be reviewed for these monitoring wells.

The Quarterly Progress Reports continue to indicate that on-going inspections of the Site occurred and that mowing and maintenance of the fenced area was performed as necessary. The latest site inspections were performed on April 1 and May 20, 1992. These progress reports noted that "erosion prevention measures have effectively preserved cap integrity" and the fences, gates, locks and signs have "provided effective security for the Site".

Olin responded to the EPA letters of Sept. 18, 1990 and Feb. 8, 1991 concerning the August 1989 "Post-Closure and Contingency Plan" on April 11, 1991. Each of the EPA comments was addressed and specific maintenance and contingency procedures were discussed. Included with this response were a series of forms to be used for site inspection. These forms provide detailed reporting format for these inspections

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and, in our opinion, will be of great value to the inspection team for consistency and as checklists for thorough inspections.

Although the Quarterly Progress Reports summarize the quarterly inspections of the Site, no specific inspection log or original report documents of inspections were available for this review.

The data presented in the ROD for OU3 (April, 1991) demonstrate a significant reduction in VOC contamination of the overburden ground water when comparing the ground water monitoring data collected in 1983 to that collected in 1988-89. In this ROD, the EPA states "Based on a comparison of current and historical data, EPA has concluded that the magnitude and extent of the contamination has decreased significantly and will continue to decrease with time as the integrity of the cap is maintained." The EPA also notes that the greatest concentrations of contaminants are found in the deeper portions of the overburden aquifer. This ROD also states that the VOCs near the Site exceed federal safe drinking water standards whereas the SVOCs and metals do not.

# 4.6 Document Review of the Domestic Well Filtering and Monitoring Program

The first ROD for this Site, signed September 1984, required the installation of water filters on the domestic wells near the Site which yielded evidence of contamination or were considered likely to be contaminated. Starting in August, 1984, Olin installed filters containing activated charcoal in such homes where access was allowed. Single filter systems were installed on domestic wells where contamination had not been demonstrated. Dual filter systems were installed on homes where contamination was documented.

The reports for the Domestic Well Monitoring Program, Nos. 1 (Feb. 1985) through 88 (April 1992) were reviewed. The data from these reports indicated that when low concentrations (usually 1-5 ppb) of VOCs were detected, the filters effectively removed them from the water.

The records indicated that a program for the replacement of filters, when they demonstrated breakthrough, was in place. Specific response guidelines for coliform contamination were also documented and the reported data indicated that corrective actions were carried out when required.

One of the residents whose home abuts the Site and who has dual filters installed, confirmed, during a telephone interview, that the filters had been changed on at least an annual basis and that sampling and analyses of his water were performed periodically during the years since the installation of the filters in 1984. He has received annual summary reports of these analyses.

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### 5.0 Results of Site Visit

A Site visit and inspection of OU2 was conducted by Arthur D. Little personnel on November 3, 1992. This visit followed a night of heavy rain at the Site. Light rain continued during the inspection. Photographs were taken as additional documentation of observations made during the inspection. The following is a summary of findings of this inspection:

- The Site was found to be fenced with gates locked and signs posted (See Photographs 1-2).
- No erosion was observed on the cap or graded areas within the fence.
- Several slight depressions were seen on the top of the cap. No pooled water was observed in these depressions. The vegetation in these depressions consisted of the moss and grass (See Photograph No. 5).
- The only pooled water which was observed within the enclosure was discovered in the central drainage swale between the cap and the graded area just after the bend in the swale on its northern leg (See Photograph No. 3). The slope of the swale in this area did not appear to be sufficient to drain the water to the Southwest or North. Some of the geo-textile fabric/net of the final cover was in plain view in this area, suggesting erosion. Significant erosion was not observed.
- An adequate amount of vegetation cover was observed on the cap as well as the graded areas, although some sparse areas were seen. Several areas were covered with moss instead of grass (See Photograph No. 4). These sparse areas were observed to be distributed throughout the Site. The North side of the Site was well covered with a thick layer of grass.
- Small holes, 1-2 inch deep, apparently caused by small animals, were observed throughout the enclosed area (See Photograph No. 6).
- One animal burrow, possibly from a woodchuck, was found just inside the fence on the North side of the cap (See Photograph Nos. 7-8).
- Multiple areas along the fence were sufficiently off the ground (4-6 inches) to allow access by small animals (See Photograph No. 9).
- The area within the fence appeared to be well moved and maintained. Some large weeds were seen in the rock drainage structures on the Northwest and Northeast sides (see Photograph Nos. 10-11).

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- Outside the fence, all of the drainage structures have vegetation growing within the rocks which would potentially hinder proper drainage. The Northwest drainage structure has the most vegetation (See Photograph 12).
- The area outside the fence, on the Southwest side, showed little vegetation and some erosion (See Photograph No. 13). An erosion gully has formed outside the fence just North of the rock drainage structure nearest the South gate (See Photograph No. 14).
- Well C4D on the West side of the Site, outside the fence, was open with its inner cap off and lock on the ground (See Photograph No. 15). Arthur D. Little personnel replaced the inner PVC cap, outer cover, and lock. The lock appeared corroded, so we did not lock it. Dead vegetation under where the PVC cap and lock were found suggest they had been there for some time. There was standing water in the space between the PVC pipe and outer metal casing. The lock did not appear to be forced.
- Well C, outside the North fence, had no cap (See Photograph No. 16). Well E was capped, but not locked (See Photograph 18). These wells are included in the "Hydrodynamic Performance Monitoring Program" (Site Monitoring Plan, Operable Unit 3).
- Well C4B (See Photograph No. 17) had a concrete collar which was cracked and disintegrating.
- Well C3D had a concrete collar which was sloped 3-4 inches upwards to the well casing. The ground around the concrete showed signs of erosion (no photograph).
- All other wells appeared to be in satisfactory condition, although all were rusted and the outer caps often did not fit tightly against the casing (See Photograph Nos. 19-22).
- The reason that many of the caps did not fit tightly appeared to be that the PVC inner pipe was too high in the metal casing; this may indicate that frost has effected these wells.
- 8 waste drums, marked as "Non Hazardous", were also observed near the North gate (Photograph No. 23) within the fence.
- An area of stressed vegetation was observed on the East side of the cap within the fence. It apparently was the result of a grass pile from past mowing activities (See Photograph No. 24).

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## 6.0 Review of RCRA, Subtitle C, Standards (ARARs)

The document review and interviews with EPA indicate that the construction, maintenance, and operation of the selected remedy for OU2 was and is being performed according to the provisions of RCRA, Subtitle C (1986 Revisions).

RCRA requires that the construction of a cap over a hazardous waste to close a landfill or surface impoundment must be designed and constructed to the following requirements:

- To provide long-term minimization of the infiltration of liquids through the capped area (40 CFR 264.228(a), 264.310(b)).
- To function with minimum maintenance (40 CFR 264.228(a), 264.310(b)).
- To promote drainage and minimize erosion or abrasion of the cover (40 CFR 264.228(a), 264.310(b)).
- To accommodate settling and subsidence so that the cover's integrity is maintained (40 CFR 264.228(a), 264.310(b)).
- To have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present (40 CFR 264.228(a), 264.310(b)).
- To restrict post-closure use of the property as necessary to prevent damage to the cover (40 CFR 264.117(c)).
- To prevent run-on and run-off from damaging the cover (40 CFR 264.228(b), 264.310(b)).
- To protect and maintain surveyed benchmarks used to locate waste cells (40 CFR 264.310(b)).
- Post-closure care and ground water monitoring (40 CFR 264.310).

Each of the above items has been covered in the proposed Post-Closure and Contingency Plan and the RODs for OU2 and OU3.

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# 7.0 Overall Review Summary

The conclusions of this Five Year Review are summarized in Section 2 of this report. The documentary records, interviews with PRP and EPA personnel and the observations from the on-site inspection support these conclusions. The results of this review are summarized as follows:

- The cap was constructed according to the requirements of the ROD (September 1985) and RCRA, Subtitle C. Documentation of the construction process support this conclusion.
- During the past 5 years, the operation and maintenance of the selected remedy for OU2 has been documented. Olin, the primary PRP, has provided a Post-Closure and Contingency Plan that has been reviewed and commented upon by EPA. Olin has stated that the requirements of EPA will be implemented.
- Although some maintenance problems were observed during the on-site visit of November 3, 1992, conducted by Arthur D. Little, these problems can be remedied (See Recommendations below) and do not appear to be significantly effecting the operation of OU2.
- When comparing the early photographs taken in 1988 to the current photographs of the cap, a dramatic improvement in the amount and thickness of vegetation can be seen. All significant erosion seen within the fenced area in the photographs of 1988 has been eliminated.
- The filtration systems employed to treat the drinking water from nearby residential wells appear to have been installed and maintained as required in the ROD (September 1984) for OU1.

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### 8.0 Recommendations

The following recommendations are based on Arthur D. Little's review of the selected remedy to OU2:

- Although operations and maintenance have been satisfactorily performed and the ROD for the OU3 (April 1991) address EPA's concerns for post-closure ground water monitoring, a final, EPA approved, Post-Closure and Contingency Plan needs to be implemented as soon as possible. The observations made during the on-site inspection of November 3, 1992 support the need for this action.
- A Standard Operating Procedure (SOP) for site inspections, linked to the inspection forms already in place, is highly recommended. The inspection forms should be modified to provide documentation of any animal signs. Routine inspections of the Site must identify problems such as the animal burrow and signs of animal disturbance on the cap as well as the unlocked and uncovered monitoring wells. The best way to accomplish this is to train personnel using specific SOPs. Documentation of this training is also highly recommended.
- The slight depressions on the cap need to be filled or, at a minimum, monitored to prevent future problems.
- The central drainage swale should be modified to allow better drainage.
- The drainage structures must be kept clear of vegetation.
- Additional loam and seeding may be required for the cap to assure adequate vegetation.
- The fences should be lowered or buried to eliminate spaces between the ground and fence which currently allows access by small animals.
- The Southwest side of the Site, outside of the fence, should be graded, loam added and seeded to allow for proper vegetation. The lack of vegetation is resulting in erosion outside the fence which may result in problems for the Site in the near future.
- Wells C and E should be included in the Well Maintenance Program or be properly abandoned.